



Classification: Mechanical Engineer	Position No. 3200-3583-007
CBID: R09	Office: Energy Generation Research Office
Date Prepared: October 2018	Division: Energy Research and Development
KEY: (E) IS ESSENTIAL, (M) IS MARGINAL	

Under the general direction of the supervisor, the incumbent serves as part of an interdisciplinary and/or interdivisional team(s) to plan and implement the Energy Commission's research and development programs. The goal of the Energy Research and Development Division is to conduct research, development and demonstration (RD&D) to advance science and technologies not adequately provided by the regulated and competitive markets. The incumbent is knowledgeable to advanced energy technologies and the relationship to competitive energy markets; performs responsible, complex and difficulty mechanical engineering analyses to support energy RD&D funding; manages RD&D projects; and consults with experts in the field.

WORKING CONDITIONS

The incumbent works in an indoor office and meeting room setting involving sitting, standing, and walking. Travel is required to attend workshops, hearings and meetings. Additional hours beyond an eight-hour workday or forty-hour workweek may be required. While performing the duties described below, the incumbent will be required to work alone and/or in a team environment using a personal computer and appropriate Energy Commission software such as word processing, spreadsheet and data management programs, electronic mail and Internet browsers. The incumbent will participate in meetings with staff from the Energy Commission and with other agencies.

DUTIES AND RESPONSIBILITIES

- 50% **Technology assessment.** The incumbent conducts detailed engineering assessments to determine the relative importance of each technology in addressing energy market issues and needs. Depending on the nature of the proposal, the incumbent may perform one or more complex engineering evaluations relating to mass and energy balances, First and Second Law Efficiency, mechanical system performance, heat transfer, environmental controls, material selection and specifications, performance and suitability of components, efficiency and economics of engineering design options, cost, and performance, and the RD&D requirements relating to the development and deployment of these technologies. The incumbent also provides technical assistance to contract managers and other staff in analyzing engineering problems. (E)
- 20% **Contract and Project Management.** The incumbent prepares the work statement, budget, schedule, special conditions, measurable technical and economic objectives which will be used to determine project success, and other materials necessary to finalize the funding agreement and contract document; establishes and maintains a technical and business relationship with the contractor; initiates and approves contract amendments; receives and reviews monthly progress reports and prepare evaluation of the project; verifies that all contract terms and conditions have been met before approving the invoices



(if necessary, dispute a particular invoice); conducts independent and in-depth technical reviews of the work conducted by the contractor; works directly with the contractor and makes project site inspections to ensure the project meets technical, fiscal, and administrative objectives; and briefs office, division and commission management on the status of the project. (E)

- 15% **Project Evaluation.** The incumbent reviews proposals to determine how well the project addresses the scope of the solicitation criteria including, but not limited to: the extent the project will advance science or technology, address market issues and needs; meet specified target goals and objectives; the skill and experience of the project team to carry out the technical tasks within budget and schedule, and move the results into the marketplace; and the adequacy of project funding. The incumbent prepares written findings of such evaluations for use by a technical scoring committee. (E)
- 10% **Consultation and Outreach.** Consult with stakeholders which include but are not limited to research organizations, government and utility representatives, private developers and technical experts to identify RD&D opportunities of alternative and advanced energy systems or technologies in California; and define, develop, and implement projects that provide significant public benefits to California and meet the policy and technical objectives of the EPIC Program. (M)
- 5% **Other Duties.** As required and consistent with the specifications of this classification. (M)

SIGNATURES	
I Certify That I Am Able To Perform, With Or Without The Assistance Of A Reasonable Accommodation, The Essential Job Duties Of This Position	
<div style="display: flex; justify-content: space-between;"> <div>Incumbent</div> <div>Date</div> </div> <div>Mechanical Engineer</div>	<div style="display: flex; justify-content: space-between;"> <div>Rizaldo Aldas</div> <div>Date</div> </div> <div>Energy Resources Specialist III (Supervisory)</div>